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## DIAGNOSTIC METHODS FOR NEOPLASIA

This application is a Continuation of prior U.S. Application Serial No. 09/200,662 filed November 25, 1998, pentitled "Diagnostic Methods for Neoplasia," which is incorporated herein by reference.

### **BACKGROUND OF THE INVENTION**

In recent years, new types of neoplasia inhibitors have been emerging. Such compounds selectively induce apoptosis (a form of cell death) in neoplastic, but not in normal cells. Neoplasia -- which includes both precancerous and cancerous conditions -- was historically treated chemotherapeutically only at the cancerous stage. Treatment with chemotherapeutics induced cell death (whether by apoptosis or necrosis) in rapidly proliferating cells indiscriminately (i.e., whether those cells were neoplastic or normal). As a result, most conventional chemotherapeutics caused significant cell death in normal tissues such as hair follicles, intestinal lining, skin and the like, that regenerate rapidly in the body. The side effects (e.g., hair loss, and skin and digestive disorders) of such conventional chemotherapeutics reflect non-specific cell death. As a result, conventional chemotherapeutics are used only on an acute (i.e., short-term) basis.

Because conventional chemotherapeutics non-specifically induce cell death, in both neoplastic and normal cells, such compounds are not recommended for use against precancerous conditions even in patients with the most severe forms of precancerous conditions. For example, in familial polyposis patients -- who can each form thousands of colonic polyps -- surgical removal of the colon is standard practice (because of the extremely high cancer risk) whereas conventional chemotherapy is virtually unheard of.

As reported in pending U.S. Patent Application Serial No. 09/664,035 filed September 18, 2000 (Method For Identifying Compounds For Inhibition Of